

CLAIMS

What is claimed is:

1. An emulation and native language interface test method comprising:
5 initializing an emulation language virtual machine;
wrapping native language code in a simulation test macro which creates
simulated interfacing problems; and
examining reaction to said simulated interfacing problems when an emulation
language application is run.
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2. An emulation and native language interface test method of Claim 1 wherein
said emulation language virtual machine creates a runtime environment and said
runtime environment can include a class loader subsystem and an execution engine.
- 15 3. An emulation and native language interface test method of Claim 1 wherein
said simulated test problems include simulations of error conditions associated with a
native language code method attempt to respond to a call from emulation language
code.
- 20 4. An emulation and native language interface test method of Claim 1 further
comprising forwarding an indication that there is a insufficient memory allocation
exception to a native language method attempting to ascertain an indication of a
memory location for information associated with a native language function.
- 25 5. A Java native interface testing system comprising:
means for communicating information;

means for processing said information, including instructions for testing a Java native interface, said means for processing said information coupled to said means for communicating information; and

means for storing said information, including said instructions for testing said
5 Java native interface, said means for storing said information coupled to said means for communicating information.

6. The Java native interface system of claim 5 wherein said means for processing performs a Java Native Language Interface test method.

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7. The Java native interface system of claim 5 wherein said instructions include an interface testing macro module.

8. The Java native interface system of claim 5 emulates a Java virtual machine.

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9. A Java Native Language Interface test method comprising:
investigating Java Native Language Interface test mode status;
running a Java application with simulated Java Native Language Interface
problems if said Java Native Language Interface test mode is enabled; and
20 initiating a call to a Java Native Language Interface function directly without
said simulated Java Native Language Interface problems if said Java Native Language
Interface test mode is not enabled.

10. A Java Native Language Interface test method of Claim 9 wherein said Java
25 Native Language Interface test mode status indicator indicates if said Java Native
Language Interface test mode status is enabled.

11. A Java Native Language Interface test method of Claim 9 wherein said Java Native Language Interface test mode status indicator is a flag wherein a state of said flag indicates if said Java Native Language Interface test mode status is set.

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12. A Java Native Language Interface test method of Claim 9 wherein a register value indicates said Java Native Language Interface test mode status.

13. A Java Native Language Interface test method of Claim 9 wherein said
10 problems include identifying indications of Java Native Language Interface code trouble associated with out of memory situations.

14. A Java Native Language Interface test method of Claim 9 wherein a Java Native
Language Interface problem simulation process is performed to simulate Java Native
15 Language Interface problems.

15. A Java Native Language Interface test method of Claim 9 further comprising:
determining a Java Native Language Interface problem simulation occurrence
level;

20 introducing simulation randomness;

performing an analysis whether to initiate a simulation of Java Native Language
Interface problem;

calling a Java Native Language Interface memory allocation function normally;

forwarding a Java Native Language Interface problem indicator automatically;

25 and

implementing a reaction to the Java Native Language Interface problem indication.

16. A Java Native Language Interface test method of Claim 15 further comprising:
5 looking up a predefined Java Native Language Interface problem simulation occurrence level;
generating a random value; and
correlating said random value to said JNI problem simulation occurrence level.
- 10 17. A Java Native Language Interface test method of Claim 16 further comprising:
comparing said randomly generated value to said Java Native Language Interface problem simulation occurrence level; and
initiating a simulation of a Java Native Language Interface problem if said
generated value from is less than said Java Native Language Interface problem
15 simulation occurrence level.
18. A Java Native Language Interface test method of Claim 16 further comprising
initiating a controlled shut down.
- 20 19. A Java Native Language Interface test method of Claim 16 further comprising
clearing a system and canceling information inventory collections that is occupying
memory space.
20. A Java Native Language Interface test method of Claim 16 further comprising
25 providing an indication of the Java Native Language Interface problem to a user.